UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,098	06/16/2006	Ralf Boehnke	287953US8X PCT	1264

22850   7590   11/12/2009
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
ROBERTS, BRIAN S

ART UNIT	PAPER NUMBER
2466	

NOTIFICATION DATE	DELIVERY MODE
11/12/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 July 2009_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _27-42_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _27-42_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _16 June 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

- Claims 27-42 remain pending.

Information Disclosure Statement

The reference "Millennial Net" cited on the information disclosure statement filed

09/29/2009 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609

because there is not a date listed.

Specification

The disclosure is objected to because it contains embedded hyperlinks. Applicant

is required to delete the embedded hyperlinks. See MPEP § 608.01.

Claim Objections

Claim 42 is objected to because of the following informalities:

- Claim 42 line 3, "power higher consumption" should read --higher power

  consumption--

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 27-33, 40, and 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Carrender et al. (US 2005/0156039) in view of Tiernay et al. (US 2001/0050922), and further in view of Rotzoll (US 5790946).

- In reference to claim 27

In Figure 1, Carrender et al. teaches an heterogeneous wireless data transmission network that includes a reader **101** (*master node*) (paragraph 0018-0019); a class III tag (*passive slave node*) including inherently a first passive transmitter configured to modulate and reflect external RF signals, said class III tag (*passive slave node*) being configured to transmit data to the reader **101** (*master node*) by modulated backscatter communication using the first passive transmitter (paragraph 0030); and an class IV tag (*active slave node*) said class IV tag (*active slave node*) node being configured to transmit data to the class III tag (*passive slave node*) (paragraph 0031).

Carrender et al. does not teach that the class IV tag (*active slave node*) includes a second passive transmitter configured to modulate and reflect external RF signals and a first active transmitter configured to transmit a modulated signal independently, and configured transmit the data to the class III tag (*passive slave node*) using the first active transmitter.

In Figure 1, Tiernay et al. teaches a transponder **100** includes a passive transmitter configured to modulate and reflect external RF signals and a first active transmitter configured to transmit a modulated signal independently, and configured to transmit data using an active transmitter. (paragraphs 0050-0051)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the system of Carrender et al. to include the class IV tag (*active*

slave node) including a second passive transmitter configured to modulate and reflect

external RF signals and a first active transmitter configured to transmit a modulated

signal independently, and configured to transmit the data to the class III tag (*passive*

slave node) using the first active transmitter as suggested by Tiernay et al. because it

allows the class IV tag to perform both active transmissions and modulated backscatter

transmissions.

The combination of Carrender et al. and Tiernay et al. does not teach that the

wherein the reader **101** (*master node*) is configured to wake up the class III tag (*passive*

slave node) or the class IV tag (*active slave node*) from a sleep state at any time by

transmitting a wake-up signal to the class III tag (*passive slave node*) or the class IV tag

(*active slave node*).

In Figure 1, Rotzoll teaches a transmitter **10** and a receiver **12**. The transmitter

10 is configured to wake up the receiver **12** from a sleep state at any time by

transmitting a wake-up signal. (column 2 lines 36 - column 3 line 26)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the system of the combination of Carrender et al. and Tiernay et

al. the reader **101** (*master node*) being configured to wake up the class III tag (*passive*

slave node) or the class IV tag (*active slave node*) from a sleep state at any time by

transmitting a wake-up signal to the class III tag (*passive slave node*) or the class IV tag

(*active slave node*) as suggested by Rotzoll because it allows the class III tag (*passive*

slave node) and the class IV tag (*active slave node*) to save power by switching to a

sleep mode during periods of activity while still being able to communicate with reader

101 (*master node*) by switching to an active mode upon request of the reader **101**

(*master node*).

- In reference to claim 28

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system

that covers substantially all limitations of the parent claim. In Figure 1, Carrender et al.

further teaches that another class IV tag (*active slave node*). (paragraph 0018-0019;

0031)

The combination of Carrender et al., Tiernay et al., and Rotzoll does not teach

that the class IV tag (*active slave node*) is configured to wake up the class III tag

(*passive slave node*) or another class IV tag (*active slave node*) from a sleep state at

any time by transmitting a wake-up signal to the class III tag (*passive slave node*) or the

another class IV tag (*active slave node*).

In Figure 1, Rotzoll teaches a transmitter 10 and a receiver 12. The transmitter is

configured to wake up the receiver 12 from a sleep state at any time by transmitting a

wake-up signal. (column 2 lines 36 - column 3 line 26)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the system of the combination of Carrender et al., Tiernay et al.,

and Rotzoll to include the class IV tag (*active slave node*) being configured to wake up

the class III tag (*passive slave node*) or another class IV tag (*active slave node*) from a

sleep state at any time by transmitting a wake-up signal to the class III tag (*passive*

slave node) or the another class IV tag (*active slave node)* as suggested by Rotzoll

because it allows the class III tag (*passive slave node*) and the another class IV tag

(*active slave node*) to save power by switching to a sleep mode during periods of

activity while still being able to communicate with class IV tag (*active slave node*) by

switching to an active mode upon request of the class IV tag (*active slave node*).

-   In reference to claim 29

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system

that covers substantially all limitations of the parent claim. In Figure 1, Carrender et al.

further teaches that the reader **101** (*master node*) further comprises a second active

transmitter configured to transmit data to the first active transmitter of the class IV tag

(*active slave node*). (paragraph 0018-0019)

-   In reference to claim 30

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system

that covers substantially all limitations of the parent claim. In Figure 1, Carrender et al.

further teaches that the class III tag (*passive slave node*) further comprises a

processing unit configured to process and create dynamic data for transmission by the

first passive transmitter. (paragraph 0029-0030; 0023)

-   In reference to claim 31

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system that covers substantially all limitations of the parent claim. In Figure 1, Carrender et al. further teaches that the class III tag (*passive slave node*) includes a power supply. (paragraph 0029-0030; 0023)

- In reference to claim 32

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system that covers substantially all limitations of the parent claim. In Figure 1, Carrender et al. further teaches that the class IV tag (*active slave node*) further includes a sensor element configured to detect operational parameters of the class IV tag (*active slave node*) or environmental data. (paragraph 0027)

- In reference to claim 33

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system that covers substantially all limitations of the parent claim. In Figure 1, Carrender et al. further teaches that the class III tag (*passive slave node*) or class IV tag (*active slave node*) further includes a remotely controllable actuator element configured to execute programmable actions. (paragraph 0027)

- In reference to claim 40

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system that covers substantially all limitations of the parent claim. In Figure 1, Carrender et al.

further teaches that the network is configured in a hybrid star or meshed topology.

(paragraph 0018-0019)

-   In reference to claim 42

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system

that covers substantially all limitations of the parent claim. In Figure 1, Carrender et al.

further teaches that the reader **101** (*master node*) includes a active receiver that has a

power higher consumption and sensitivity than the first passive receiver in the class III

tag (*passive slave node*) or the second passive received in the class IV tag (*active slave

node*), and the first passive receiver in the class III tag (*passive slave node*) or the

second passive receiver in the class IV tag (*active slave node*) has a lower power

consumption and sensitivity than the active receiver in the reader **101** (*master node*).

(paragraph 0018-0019)

2.   Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Carrender et al. (US 2005/0156039) in view of Tiernay et al. (US 2001/0050922), and in

view of Rotzoll (US 5790946), as applied to the parent claims, and further in view of

Overhultz et al. (US 2004/0056091).

-   In reference to claim 34

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system

that covers substantially all limitations of the parent claim.

The combination of Carrender et al., Tiernay et al., and Rotzoll do not teach a second reader (*master node*), wherein the class III tag (*passive slave node*) or the class IV tag (*active slave node*) is configured to transmit data to the reader **101** (*master node)* by modulating and reflecting an external signal transmitted from the second reader (*master node)*.

In Figure 7, Overhultz et al. teaches a plurality of tag readers **12** (*master node*s), wherein a tag **10** is configured to transmit data to a tag reader **12** (*master node*) by modulating and reflecting an external signal transmitted from a second tag reader **12** (*master node*). (paragraphs 0089; 0062)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system of the combination of Carrender et al., Tiernay et al., and Rotzoll to include a second reader (*master node*), wherein the class III tag (*passive slave node*) or the class IV tag (*active slave node*) is configured to transmit data to the reader **101** (*master node)* by modulating and reflecting an external signal transmitted from the second reader (*master node)* as suggested by Overhultz et al. because it allows the class III tag (*passive slave node*) or the class IV tag (*active slave node*) to utilize the RF energy from a second reader (*master node)* in order to communicate with the reader **101** (*master node)*.

3.   Claims 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reis et al. (US 5640151) Carrender et al. (US 2005/0156039) in view of Tiernay et al. (US 2001/0050922), in view of Rotzoll (US 5790946), and in view of Overhultz et al. (US

2004/0056091) as applied to the parent claims, and further in view of Reis et al. (US

5640151).

- In reference to claim 35-39

The combination of Carrender et al., Tiernay et al., Rotzoll, and Overhultz et al.

teaches a system that covers substantially all limitations of the parent claim.

The combination of Carrender et al., Tiernay et al., Rotzoll, and Overhultz et al.

does not teach that the wake-up signal further includes group or individual identification

information, the class III tag (*passive slave node*) or the class IV tag (*active slave node*)

is configured to switch from the sleep state to an identification information detection

state upon reception of the wake-up signal, the class IV tag (*active slave node*) or the

class III tag (*passive slave node*), in the identification information detection state, is

configured to switch to a control data reception state for receiving control data when the

wake-up signal includes identification information identifying the class IV tag (*active

slave node*) or the class III tag (*passive slave node*), respectively, and the class IV tag

(*active slave node*) or the class III tag (*passive slave node*), in the identification

information detection state, is configured to switch to the sleep state if the wake-up

signal does not include said identification information identifying the class IV tag (*active

slave node*) or the class III tag (*passive slave node*), respectively.

Reis et al. teaches a transmitter sending a wake-up signal that includes address

(*identification*) information to a group of tags, each tag is configured to switch from a

sleep state to an identification information detection state upon reception of the wake-up

signal, each tag in the identification information detection state, is configured to switch

to a control data reception state for receiving control data when the wake-up signal

includes address (*identification*) information identifying the tag, respectively, and each

tag, in the identification information detection state, is configured to switch to the sleep

state if the wake-up signal does not include said address (*identification*) information

identifying the tag. (column 5 lines 3-25)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the system of the combination of Carrender et al., Tiernay et al.,

Rotzoll, and Overhultz et al. to include the wake-up signal further including group or

individual identification information, the class III tag (*passive slave node*) or the class IV

tag (*active slave node*) being configured to switch from the sleep state to an

identification information detection state upon reception of the wake-up signal, the class

IV tag (*active slave node*) or the class III tag (*passive slave node*), in the identification

information detection state, being configured to switch to a control data reception state

for receiving control data when the wake-up signal includes identification information

identifying the class IV tag (*active slave node*) or the class III tag (*passive slave node*),

respectively, and the class IV tag (*active slave node*) or the class III tag (*passive slave

node*), in the identification information detection state, being configured to switch to the

sleep state if the wake-up signal does not include said identification information

identifying the class IV tag (*active slave node*) or the class III tag (*passive slave node*)

as suggested by Reis et al. because it allows tags the class IV tag (*active slave node*)

or the class III tag (*passive slave node*) to conserve power by switching to sleep mode if

not identified by address information.

4.   Claim 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Carrender et al. (US 2005/0156039) in view of Tiernay et al. (US 2001/0050922), and in

view of Rotzoll (US 5790946), as applied to the parent claims, and further in view of

Herrmann et al. (US 2003/0151513).

-    In reference to claim 41

The combination of Carrender et al., Tiernay et al., and Rotzoll teaches a system

that covers substantially all limitations of the parent claim.

The combination of Carrender et al., Tiernay et al., and Rotzoll does not teach

that the master node is connected to a bridge providing a wireless or wired

communication link to at least one other master node.

In Figure 2, Herrmann et al. teaches that a cluster head (*master node*) is

connected to a bridge providing a wireless or wired communication link to at least one

other master module. (paragraphs 0026-0028)

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to modify the system of the combination of Carrender et al., Tiernay et al.,

and Rotzoll to include the reader **101** (*master node* being connected to a bridge

providing a wireless or wired communication link to at least one other master node as

suggested by Herrmann et al. because it allows an extended communication range of

the network.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- US 2003/0104848

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN ROBERTS whose telephone number is (571)272-3095. The examiner can normally be reached on M-F 10:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, DANIEL RYMAN can be reached on (571) 272-3152. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BSR
11/08/2009

/Daniel J. Ryman/
Supervisory Patent Examiner, Art Unit 2466